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ON THE LENGTH OF BARKER SEQUENCES

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ABSTRACT

A Barker sequence, is a finite binary sequence of integers, each ± 1, whose all non-trivial acyclic autocorrelation coefficients are of size at most 1. It is widely believed that there does not exist any Barker sequence of length greater than 13. in this paper we focus on the Barker sequences with odd length. We fist present a relation for the product of any two consecutive members of such a Barker sequence and then we will show that the length is at most 13

KEYWORDS: Acyclic, Autocorrelation Coefficients, Barker Sequence